

**ABSTRACT OF THE DISCLOSURE**

A digital data driver and LCD using the same. In the digital data driver, a plurality of data lines, each transfer first data during a first period and second data during a second period. A first shift register outputs a first enable signal during the first period, a second shift register outputs a second enable signal during the second period. Transmission controllers are coupled to the data lines respectively, each outputs the first data and the second data to two different DAC according to the first and second enable signals and two external signals. The present invention, by sharing latches and DACs, prevents layout and wire routing difficulty caused by the increased lateral layout area required by increased LCD resolution.